Date Entered 06-OCT-00 Date Updated 07-DEC-03

NOAA Restoration Center

Adobe Creek Exclusionary Fencing

Project Description

Volunteers and local landowners will assist in a pilot project installing exclusionary fencing on cattle ranches to prevent cattle from destroying streams and habitats. Restoration of native riparian vegetation will also be performed. Fencing will be installed on both sides of the creek for about 2.5 miles.

Project Nickname	Adobe Creek Fencing (NOAA RC-00)		
Location	Petaluma, Sonoma County, CA, SWR		
Program	Community-based Restoration	**Congressional District**	CA 6
Lat, Long Coordinates	-122.583, 38.2754	**Land Ownership**	Private
Implementation Start Date	01-SEP-99	**Implementation End Date**	31-MAR-00
River Basin	Adobe Creek	**HUC**	18050002
Geographic Identifier	Petaluma River	**USGS Topo Quad**	COTATI
Project Status	Implementation Complete	**Project Type**	Restoration
Project Status Description			
Landmark	3258 Adobe Road, Petaluma		
Number of Volunteers		**Volunteer Hours**	
Volunteer Description			
Proposed Project?		**Project Closed?**	Y
		FY Completed	2000

Habitat Information

Type	Acres Created	Acres Re-established	Acres Rehabilitated	Acres Enhanced	Acres Protected	Stream Miles	# Plants/ Animals
riparian zone			12.5				

Species Information

Commonname	Genus	Species	Population Name	NMFS Status	Species Type
Trout, steelhead	*Oncorhynchus*	*mykiss*	California Central Valley	Threatened	animal

Partners

- Americorps
- California Department of Fish and Game
- United Anglers of Casa Grande High School
- California Department of Forestry

Restoration Techniques

- streambank fencing
- riparian planting

Contacts

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NOAA Involvement

- project design
- project management
- technical assistance/expertise
- source of funding

Monitoring Information

Characteristic **Type**
Additional Info

Funding Information

Funding Mechanism	FY Awarded	NOAA Contribution	Partnership Contributio	Total Partnership Contribution
NOAA Restoration Center	2000	$30,000	$0	$30,000
TOTALS		$30,000	$0	$30,000

Other Non-Federal $ $0 **Other Federal $** $156,000 **Total Project Cost** $186,000

Funding Recipient NMFS Southwest Region

Funding Comments

Project Abstract

Adobe Creek, and other tributaries to the Petaluma River, are highly impacted by both urban encroachment and agricultural activities, mainly livestock grazing. These creeks historically supported runs of anadromous steelhead trout and, and anadromous fish protected by the federal Endangered Species Act. One primary factor for decline of the fish in this small watershed is the adverse impact associated with unrestricted access of cattle into the upper watersheds where these fish spawn and rear. On Adobe Creek, uncontrolled cattle grazing has occurred for over 50 years. These cattle intensively graze and browse along stream sides, causing a loss of essential vegetation and accelerated erosion processes. Destruction of the dense riparian corridor deprives the water of nutrient input and the resulting food sources for fish. Further, the loss exposes these streams to the intense summer sun, causing temperature increases that are lethal to steelhead. In addition, the excessive erosion and sedimentation caused by cattle trampling fouls spawning beds and affects water quality, which is also affected by cattle waste entering the stream. The unrestrained cattle also wade directly into streams, trampling fertilized fish eggs and often displacing juvenile fish from essential micro-habitats.

In an effort to restore the degraded habitat of Adobe Creek, the National Marine Fisheries Service, Southwest Region, is working on a restoration project to construct exclusionary fences along both sides of a 2.5-mile stretch of the creek. These fences will exclude cattle from immediate access too highly impacted streams, allowing riparian buffers to become re-established over time. This riparian reforestation is not only a significant benefit to fisheries, but to upland fauna and flora as well. Fencing was put in place by the California Department of Forestry and was completed in March, 2000. The demonstration project is located just outside the Petaluma city limits on a privately owned ranch and hopes to be an example of federal and state agencies working with ranchers to achieve habitat restoration. The United Anglers of Casa Grande High have begun planting much of the riparian vegetation. With time, vegetation will shade more of the creek which will remain cooler, provide more oxygen to fish, and increase the biological diversity within the stream.